REMARKS

Reconsideration of this application, as amended, is respectfully requested.

Applicants affirm election of the claims of Group II, claims 26-30. The withdrawn claims have been canceled.

Claim 26 has been incorporated into claim 26, except reference to aluminum oxides has been deleted and "magnetizable" has been inserted before iron oxides.

In claim 29, reference to 'in one step" has been eliminated to overcome the objection thereto.

Claims 26, 27 and 29 were rejected under 35 U.S.C. §103(a) as allegedly obvious over Kulkarni. Claims 28 and 30 were rejected as allegedly obvious over the combination of Kulkarni and Stevens. Applicants respectfully traverse.

It is not believed that Kulkarni discloses that mica should be an electroconductively coated mica and why the iron oxides should also be conducting particles. Electroconductively coated mica is a seldom used chemical. Micas and iron oxides are often impurities, filler materials or coloring pigments, and these is no hint or suggestion to add them as electroconductive materials. If these iron oxides or the coated mica would be electroconductive, there would be no need to add extremely expensive electroconductive polymers. Micas themselves are naturally insulating, so there must be a teaching of coated micas. The non-magnetizable iron oxides are often not crystalline or not a well defined crystal structure and/or are often iron oxides-hydrates which do not exhibit electroconductivity. If Kulkarni taught electroconductive materials, then such compounds would likely have been mentioned. The listing of possible additives is quite vague.

In any event, the examples of Kulkarni of not show any additive that may be electroconductive, except, perhaps, for intrinsically conductive polymers like polyaniline. None of the examples show curing with radiation.

Furthermore, usually additives added to a coating composition do not exceed 8% by weight. The claimed content of 10% by weight of electroconductive inorganic materials result in a relatively high electroconductivity of the resultant coating.

Applicants reiterate that Kulkarni discloses a paint composition which may form electroconductive coatings by its content of polyaniline, but not by an addition of inorganic electroconductive particles. It does not disclose mica particles coated with graphite that are not normally or only very seldom used in paint technology. Among the additives, "iron oxides" are mentioned: There is no indication that this is added because of the electroconductive properties of the black magnetic Fe_3O_4, but usually only other Fe oxides are added for coloring a paint, e.g., brownish-red with Fe_2O_3 or yellowish-brownish with $Fe_2O_3 \cdot H_2O$. These last mentioned compounds may be added in the form of particles or as colloidal or gel-like substances. Of these "iron oxides", only the black magnetic Fe_3O_4 shows significant electroconductivity. The next to last paragraph of column 2 refers to pigments of paints of the state of the art that may be used as corrosion inhibition pigments, but in most cases these refer to silicate or silica pigments; in a few cases aluminum tripolyphosphate pigments are used as corrosion inhibiting pigments. Such corrosion inhibition pigments are typically electrically non-conductive and will reduce the electroconductivity of the coating strongly even if only added 0.5 to 1 % by weight.

The coatings of Kulkarni contain a) a resin on the base of an organic sulfonic acid like a polystyrene sulfonic acid, b) a film-forming organic polymer, e.g., based on acrylics, polyesters, epoxies, urethanes, etc., and optionally an intrinsically electroconductive organic polymer like polyaniline. Although it is indicated that the polymer b) may be cured by heat, UV etc., it is not clear if a curing by irradiation of UV light or heat is necessary and which type of curing is used in the examples. Additionally, a non-ionic self cross-linking acrylic emulsion is added in Example 3, and the composition of example 4 contains an internal amine crosslinker. Therefore, the mention of UV curing is vague. There is no hint to add a photoinitiator and to select polymers that may be radically cured as such polymers have to be selected to be polymerized in such a way.

Further, there is no mention of a coating thickness except that it is at least 0.1 mils. Even in the examples, there is no coating thickness and no coating weight described so that a correlation of the corrosion inhibiting effect of the coating cannot be evaluated, as a thick coating will always have a significant better corrosion resistance than a thin one. Typically, one coating layer of a paint will have a thickness in the range of 20 to 50 microns and even up to now there are relatively few applications with a thickness layer below 10 microns.

Stevens teaches a rubber article with a reinforcement structure of a metallic filament which may be a filament of steel wires coated with a zinc-containing layer. The wire is then coated with a polymeric material containing polyaniline. Stevens does not overcome the deficiencies of Kulkarni.

If any fees are due to enter this paper or to maintain pendency of this application, authorization is given to charge deposit amount no. 50-0624.

Respectfully submitted,
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